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EXAMINER

NGUYEN, JIMMY H

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/698,460

**Applicant(s)**

SHIH, KEN

**Examiner**

Jimmy H. Nguyen

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is made in response to applicant's application filed on 11/03/2003.

Claims 1-11 are currently pending in the application. An action follows below:

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature, "at least one first groove" in line 2 of claim 1 (i.e., the mouse may comprise more than one first groove), "said second groove is presented as an inclined mode with respect to horizontal" of claim 4, and "said cursor controller is selected from ... the combination thereof" in lines 1-3 of claim 7, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

3. Claim 1 is objected to under 37 CFR 1.75(a) because although this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however, claim 1 should be changed as follows, in order to clarify the claimed invention and to improve its form to conform with U.S. claim drafting practice:

“A mouse with a multi-axis inputting device, comprising: a cover including at least one first groove being provided at the top-surface of said cover; a base; an interface circuit board being fixed on said base, said interface circuit board comprising at least a cursor controller, a first scroll controller, and a second scroll controller provided thereon; and a second groove provided at a side-surface of a housing of said mouse, wherein a part of volume of said first scroll controller and said second scroll controller being exposed outside said housing of said mouse through said corresponding first groove and second groove, respectively, when said base and said cover are united to form said housing of said mouse.”

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3, 4 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 3 and 4, it is not clear what the applicant means “wherein said second groove is presented as an absolutely horizontal mode” of claim 3 and “wherein said second

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groove is presented as an inclined mode with respect to horizontal" of claim 4. The disclosure, page 7, lines 6-9, does not disclose expressly what an absolute horizontal mode or an inclined mode with respect to horizontal is, so that it is not clear what the applicant means the above underlined features. Also, see the drawing objection above.

As per claim 9, it is not clear what the applicant means "wherein said base further comprising devices selected from the group consisting of a data transmission line, wireless transmission unit, and the combination thereof", i.e., the base comprising a data transmission line, a wireless transmission unit, and the combination thereof, the base comprising a data transmission line and the combination thereof, or the base comprising a wireless transmission unit and the combination thereof. Further, the disclosure, page 5, lines 35-37, discloses

"The delivery of the aforementioned data command, of course, may be accomplished by a wired data transmission line 335 or a wireless transmission unit 337 (for instance, an infrared transmission unit)."

The above passage expressly teaches the mouse comprising either a data transmission line or a wireless transmission unit.

6. It is noted to applicant that due to the above 112 rejection to claims 3, 4 and 9 above and in order to further consider these claims, the following rejections to these claims are based as best understood by the examiner.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in

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the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claims above, these claims contain the feature, “**at least one first groove**” in line 2 of independent claim 1, i.e., the claimed mouse may comprise more than one first groove. The specification and drawing only disclose a mouse comprising a **single** first groove 317 corresponding to a first scroll wheel 371 which executes the displacement of the third axis or vertical scroll on the computer window frame (Fig. 3 and page 6, lines 5-10). Accordingly, in the case of the claimed mouse comprising more than one first groove, another scroll wheel corresponding to another first groove is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA, and further in view of Wang (USPN: 5,771,038), hereinafter Wang038.

As to claim 1, AAPA discloses a mouse comprising with a multi-axis inputting device (see Fig. 2), comprising: a cover (21) including at least one first groove (217) being provided at the top-surface of said cover; a base (23); an interface circuit board (15) (see Fig. 1) being fixed

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on said base, said interface circuit board comprising at least a cursor controller (19) (see Fig. 1), a first scroll controller (a controller including a vertical wheel 271, see Figs. 1-2), and a second scroll controller (a controller including a horizontal scroll wheel 291 and others associated with the horizontal scroll wheel 291, such as a rotating disk, a bracket, a light sensing module, and etc., see Fig. 1) provided thereon; and a second groove (219) provided at a top surface of the cover (see Fig. 2), wherein a part of volume of said first scroll controller and said second scroll controller being exposed outside said housing of said mouse through said corresponding first groove and second groove, respectively, when said base and said cover are united to form said housing of said mouse. See the present application, pages 1-3. AAPA does not disclose the second groove provided at a side-surface of a housing of said mouse. Accordingly, AAPA discloses all the claimed limitations except for the location of the second groove and the second controller, as presently claimed.

However, Wang038 discloses a related mouse (see Fig. 15) comprising a first groove provided on the right side-surface of a housing and a second groove provided on the left side of the housing, wherein a part of volume (a wheel 143) of the first scroll controller is exposed outside said housing of said mouse through the corresponding first groove and a part of volume (a wheel 142) of the second scroll controller is exposed outside said housing of the mouse through the corresponding second groove, when said base and said cover are united to form said housing of said mouse (see Fig. 15, col. 7, lines 54-64 and col. 8, lines 10-18). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to relocate the second groove and the corresponding second scroll controller of AAPA, in view of the teaching in the Wang038 reference, because this would enable the second controller to be

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manipulated by a thumb of a user (see claim 1 of Wang038), thereby avoiding a relocation of a user's finger, such as an index finger or a middle finger which is used to manipulate a left key.

As to claim 2, Wang038 further teaches the second groove disposed at the side-surface of the base (see Fig. 15).

As to claim 3, Wang038 further teaches the second groove presented as an absolutely horizontal mode (see Fig. 15).

As to claim 4, Wang038 further teaches the second groove presented as an inclined mode with a slope of zero with respect to horizontal direction. See Fig. 15.

As to claims 5 and 6, noting in Figs. 1 and 2 and the corresponding description, pages 1-3, AAPA further teaches each of the first and second scroll controllers comprising a bracket fixed on said interface circuit board, a wheel, a part of volume thereof projecting outside the corresponding groove, a sensitized rotary disk and a light-sensing module situated at the side of the wheel, and a button switch depressed as an external force is applied to the wheel.

As to claim 7, AAPA further teaches the cursor controller comprising a ball 19 (see Fig. 1).

As to claims 8 and 10, AAPA further teaches the top-side of said cover further comprising a left keys (213) and a right function key (215). See Fig. 2.

As to claim 9, AAPA further teaches the base further comprising a data transmission line (135) and a wireless transmission unit (137). See Fig. 1.

As to claim 11, AAPA does not disclose at least one function key positioned on the top side of the cover and between the left key and right key, as presently claimed. However, Wang038 further teaches the mouse further comprising a function key (a middle key) positioned



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on the topside of the cover and between the left key and right key (Fig. 15). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide a function key positioned on the topside of the cover and between the left key and right key of AAPA, in view of the Wang038 reference, because this would provide more functions to a computer user in accordance with a particular application.

11. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, and further in view of Clark et al. (USPN: 5,095,303), hereinafter Clark.

As to claim 1, AAPA discloses a mouse comprising with a multi-axis inputting device (see Fig. 2), comprising: a cover (21) including at least one first groove (217) being provided at the top-surface of said cover; a base (23); an interface circuit board (15) (see Fig. 1) being fixed on said base, said interface circuit board comprising at least a cursor controller (19) (see Fig. 1), a first scroll controller (a controller including a vertical wheel 271, see Figs. 1-2), and a second scroll controller (a controller including a horizontal scroll wheel 291 and others associated with the horizontal scroll wheel 291, such as a rotating disk, a bracket, a light sensing module, and etc., see Fig. 1) provided thereon; and a second groove (219) provided at a top surface of the cover (see Fig. 2), wherein a part of volume of said first scroll controller and said second scroll controller being exposed outside said housing of said mouse through said corresponding first groove and second groove, respectively, when said base and said cover are united to form said housing of said mouse. See the present application, pages 1-3. AAPA does not disclose the second groove provided at a side-surface of a housing of said mouse. Accordingly, AAPA discloses all the claimed limitations except for the location of the second groove and the second controller, as presently claimed.

However, Clark discloses a related mouse (see Fig. 1) comprising a first groove provided on the top side surface of a housing and a second groove provided on the left side of the housing, wherein a part of volume (a wheel 80) of the first scroll controller is exposed outside said housing of said mouse through the corresponding first groove and a part of volume (a wheel 86) of the second scroll controller is exposed outside said housing of the mouse through the corresponding second groove, when said base and said cover are united to form said housing of said mouse (see Figs. 1 and 2). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to relocate the second groove and the corresponding second scroll controller of AAPA, in view of the teaching in the Clark reference, because this would enable the second controller to be manipulated by a thumb of a user, thereby avoiding a relocation of a user's finger, such as an index finger or a middle finger which is used to manipulate a left key.

As to claim 2, Clark further teaches the second groove disposed at the side-surface of the housing (see Fig. 1).

As to claim 3, Clark further teaches the second groove presented as an absolutely horizontal mode (see Fig. 3).

As to claim 4, Clark further teaches the second groove presented as an inclined mode with a slope of zero with respect to horizontal direction. See Fig. 3.

As to claims 5 and 6, noting in Figs. 1 and 2 and the corresponding description, pages 1-3, AAPA further teaches each of the first and second scroll controllers comprising a bracket fixed on said interface circuit board, a wheel, a part of volume thereof projecting outside the

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corresponding groove, a sensitized rotary disk and a light-sensing module situated at the side of the wheel, and a button switch depressed as an external force is applied to the wheel.

As to claim 7, AAPA further teaches the cursor controller comprising a ball 19 (see Fig. 1).

As to claims 8 and 10, AAPA further teaches the top-side of said cover further comprising a left keys (213) and a right function key (215). See Fig. 2.

As to claim 9, AAPA further teaches the base further comprising a data transmission line (135) and a wireless transmission unit (137). See Fig. 1.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Clark, and further in view of Wang (US 6,580,420 B1), hereinafter Wang 420.

As to claim 11, AAPA does not disclose at least one function key positioned on the top surface of the cover and between the left key and right key, as presently claimed. However, Wang420 discloses a related mouse comprising a function key 108 (a middle key) positioned on the top surface 104 of the cover and between the left key 9108) and right key (108). See Fig. 1. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide a function key positioned on the top surface of the cover and between the left key and right key of AAPA, in view of the Wang420 reference, because this would provide more functions to a computer user in accordance with a particular application (see Wang420, abstract).

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHN  
April 28, 2006



Jimmy H. Nguyen  
Primary Examiner  
Technology Division: 2629